



Product Datasheet LAS-OI01 (orb2703916)

Catalog Number orb2703916

Category Small Molecules

Description LAS-OI01 is a novel LNP (Lipid Nanoparticle) vaccine adjuvant and

immunotherapeutic agent that combines a dual-adjuvant molecular system comprising CpG 2007 (a TLR9 agonist) and a TLR7/8 activator. This combination elicits robust and long-lasting cellular and humoral immune responses, significantly enhancing the immunogenicity of vaccines. The LNP lipid nanoparticles optimize the uptake and activation of immune cells by efficiently delivering antigens and adjuvant molecules, thereby improving the strength and durability of immune responses. This adjuvant system is suitable for a wide range of animal vaccines, including those for pigs, cattle, sheep, horses, chickens, ducks, geese, fish, dogs, and cats. It demonstrates particularly notable efficacy in vaccines against complex pathogens such as bacteria, viruses, fungi, and parasites. Research indicates that LNP lipid nanoparticles can enhance the immunostimulatory effects of CpG 2007 by 5-10 times, while the inclusion of the TLR7/8 activator further synergistically boosts Th1-type immune responses and antibody production. In summary, the LNP lipid nanoparticle adjuvant system, with its efficient delivery capability and dual-adjuvant synergy, provides powerful technical support for animal vaccines and immunotherapy. It excels in scenarios requiring strong immune protection against complex pathogen infections.

Note For research use only

Biorbyt Ltd.

7 Signet Court, Swann Road Cambridge CB5 8LA United Kingdom

Email: <u>info@biorbyt.com</u>, <u>support@biorbyt.com</u>
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

68 TW Alexander Drive Research Triangle Park Durham NC 27713 United States

Email: $\underline{info@biorbyt.com}$, $\underline{support@biorbyt.com}$ Phone: $\underline{+1 (415) 906-5211}$ | Fax: $\underline{+1 (415) 651-8558}$